

analyzing integrin subunit expression in a mammalian tissue sample known to contain cells expressing $\alpha 1$ and $\alpha 2$ integrin subunits and in a control tissue sample; and correlating a decreased level of $\alpha 1$ integrin subunit expression or an increased level of $\alpha 2$ integrin subunit expression in the sample tissue as compared with the control tissue with the presence of or risk of developing nephropathy.

32. (NEW) A method for identifying a mammal having or at risk for developing glomerulonephropathy comprising the steps of:

analyzing integrin subunit expression in a mammalian tissue sample known to contain cells expressing $\alpha 1$ and $\alpha 2$ integrin subunits and in a control tissue sample; and correlating a decreased level of $\alpha 1$ integrin subunit expression and an increased level of $\alpha 2$ integrin subunit expression in the sample tissue as compared with the control tissue with the presence of or risk of developing nephropathy.

33. (NEW) The method of claim 31, wherein the mammal is a human.

34. (NEW) The method of claim 31, wherein the tissue sample is a kidney biopsy, a skin biopsy, or blood.

35. (NEW) The method of claim 31, wherein said analyzing comprises *in situ* hybridization.

36. (NEW) The method of claim 35, wherein said *in situ* hybridization comprises PCR enhanced *in situ* hybridization.

37. (NEW) The method of claim 31, wherein said analyzing comprises isolating RNA from the sample.

38. (NEW) The method of claim 31, wherein said analyzing comprises PCR amplification of alpha integrin subunits, and comparison of the relative amounts of $\alpha 1$ and $\alpha 2$ integrin subunits amplified in the sample and in the control.

39. (NEW) The method of claim 38, wherein the integrin subunits are analyzed with a nucleic acid probe comprising 15 or more consecutive nucleotides of $\alpha 1$ integrin nucleotides 1-3900 (SEQ ID NO: 1).

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40. (NEW) The method of claim 38, wherein the integrin subunits are analyzed with a nucleic acid probe comprising 15 or more consecutive nucleotides of $\alpha 2$ integrin nucleotides 1-1800 (SEQ ID NO: 3).

41. (NEW) The method of claim 39, wherein said nucleic acid probe comprises 15 or more consecutive nucleotides of $\alpha 1$ integrin nucleotides 267-645, 1530-1990 or 2278-2728 (SEQ ID NO: 1).

42. (NEW) The method of claim 40, wherein said nucleic acid probe comprises 15 or more consecutive nucleotides of $\alpha 2$ integrin nucleotides 320-800, 452-893, or 1607-1732 (SEQ ID NO: 3).

43. (NEW) The method of claim 31, wherein said analyzing comprises incubating the sample with an anti-integrin subunit antibody.

44. (NEW) The method of claim 31, wherein the control sample is from a mammal having no history of hypertension.

45. (NEW) The method of claim 31, wherein an increase of about 25% - 100% in the level of $\alpha 2$ integrin subunit expression in the sample tissue as compared with the control is correlated with nephropathy.

46. (NEW) The method of claim 31, wherein a decrease of about 25% - 100% in the level of $\alpha 1$ integrin subunit expression in the sample tissue as compared with the control is correlated with nephropathy.

47. (NEW) A method for identifying a mammal having diabetes who has or is at risk for developing secondary pathological changes associated with diabetes comprising the steps of:
analyzing integrin subunit expression in a mammalian tissue sample known to contain cells expressing $\alpha 1$ and $\alpha 2$ integrin subunits and in a control tissue sample; and
correlating a decreased level of $\alpha 1$ integrin subunit expression and/or an increased level of $\alpha 2$ integrin subunit expression in the sample tissue as compared with the control tissue with the presence of or risk of developing secondary pathological changes associated with diabetes.

48. (NEW) A kit for the diagnosis of nephropathy comprising:
a set of hybridization probes or antibodies capable of detecting each of $\alpha 1$ and $\alpha 2$ integrin subunit expression in a tissue sample.

49. (NEW) The kit of claim 48, further comprising nucleic acid primer pairs for amplification of $\alpha 1$ and $\alpha 2$ integrin subunits.

50. (NEW) The kit of claim 48, comprising one or more of the following primers for amplification of $\alpha 1$: Sequence ID Nos. 5, 6, 7, 11, 12, and 13.

51. (NEW) The kit of claim 48, comprising one or more of the following primers for amplification of $\alpha 2$: comprise Sequence ID Nos. 8, 9, 10, 14, 15, and 16.

52. (NEW) The kit of claim 48, further comprising $\alpha 1$ and $\alpha 2$ integrin subunit standards.

53. (NEW) The kit of claim 48, wherein said hybridization probe comprises 15 or more consecutive nucleotides of $\alpha 1$ integrin nucleotides 1-3900 (SEQ ID NO: 1).

54. (NEW) The kit of claim 48, wherein said hybridization probe comprises 15 or more consecutive nucleotides of $\alpha 2$ integrin nucleotides 1-1800 (SEQ ID NO: 3).

55. (NEW) The kit of claim 53, wherein said hybridization probe comprises 15 or more consecutive $\alpha 1$ integrin nucleotides 267-645, 1530-1990, or 2278-2728 (SEQ ID NO: 1).

56. (NEW) The kit of claim 54, wherein said hybridization probe comprises 15 or more consecutive $\alpha 2$ integrin nucleotides 320-800, 452-893, or 1607-1732 (SEQ ID NO: 3).